

26. SOME OBSERVATIONS ON THE FLOWERING AND FRUITING OF *BALANITES ROXBURGHII* PL.

(With a plate)

INTRODUCTION

Balanites roxburghii Pl., family Simarubaceae is a very drought hardy tree growing wild in West Rajasthan and in other dry parts of the country. The roots and fruits of this plant have been analysed by a number of workers for diosgenin, a valuable steroidal drug precursor. At Central Research Farm, Jodhpur, 3.65% of diosgenin from the fruits has been obtained which is the highest so far reported. The seed kernels also yield 44% non-edible oil.

For the economic feasibility for exploitation, the knowledge of flowering and fruiting of this plant is of a great significance. Conflicting observations have been reported by various authors regarding the flowering season of this plant (Table 1). In a related species

B. aegyptiaca Del. from Syria, Post (1932) reported flowering during May-July.

Field observations at Jodhpur and other places have revealed that *B. roxburghii* Pl. flowers twice a year, but the fruits reach maturity only once (Figs. 1, 2). Flower buds appear in the axils of the bifoliate leaves or on the thorns during the end of March and October. Flowers are pollinated by flies which are attracted by a secretion from the glandular margined, prominent disc. They deposit the eggs inside some of the ovaries and as the fruits mature, the larvae also develop inside the seeds. In such infected fruits, the kernel is completely consumed by the developing larva. The green larva finally emerges out by drilling a hole through the stony endocarp of the ripe fruit.

TABLE 1
FLOWERING AND FRUITING SEASON AT DIFFERENT LOCATIONS OF INDIA

Location	Flowers	Fruits	Authors
Bombay	March-May	..	T. Cooke, 1903
Rajasthan	October	..	E. Blatter and F. Hallberg, 1918
Upper Ganges	April-May	..	J. F. Duthie, 1960
Bihar, Orissa	November and February-May	November December	H. H. Haines, 1961
Punjab	April-May	Cold Season	R. N. Parker, 1973
West Rajasthan	October	October	M. M. Bhandari, 1978

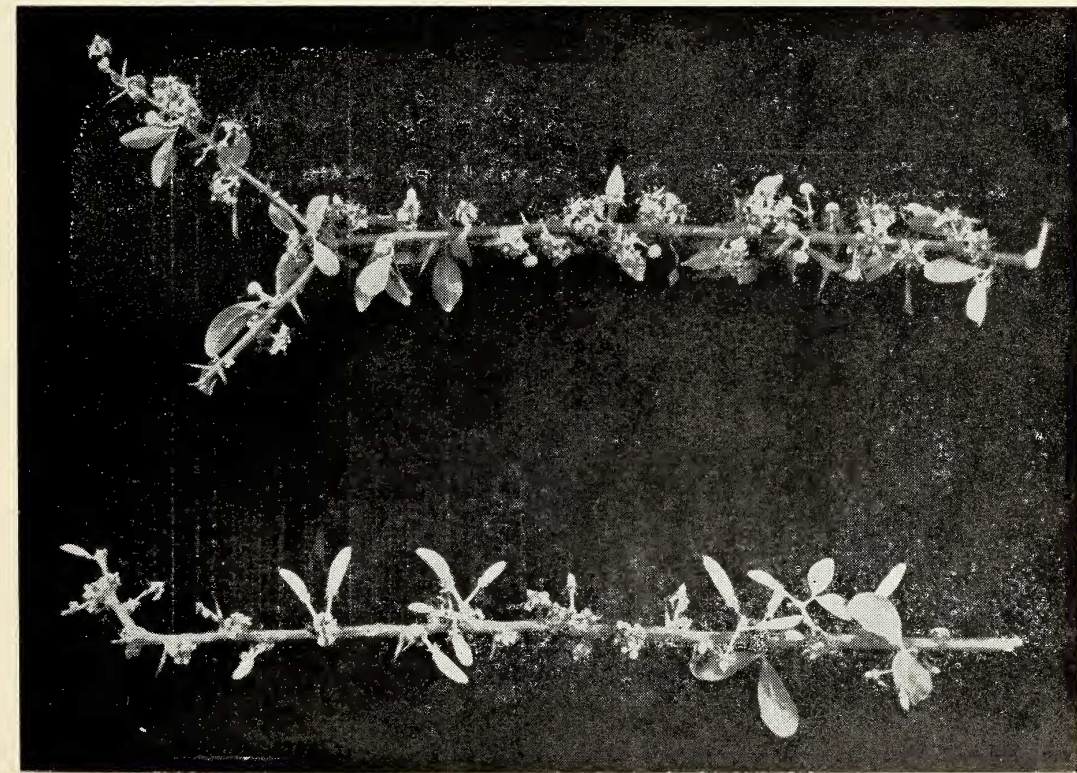


FIG. 1. Fruit set and Flowering in *Balanites* (April 1979).



FIG. 2. Mature fruits of *Balanites* (November 1979).